1: Lattimore H-4 (no date) 1950 AI 1 Sinkiang AI 1
Kazak



acquire the determining political power within clans and tribes and secure the best allocations of pasture. Disputes over winter quarters are the most common cause of quarrels between clans and tribes, and similarly the fact that good winter quarters are often on land suitable for cultivation is the commonest cause of friction between Kazakh or Mongol nomads and colonizing Uighur or Chinese farmers.

The economic development of the Sinkiang and Russian Kazakhs has not been uniform since the Soviet Revolution. The pastoral economy of the Sinkiang Kazakhs has not improved, but conditions have become worse where the Chinese authorities have permitted colonization of some of their territory by Uighurs or Chinese. On the Soviet side of the frontier, the traditional nomadic economy has been strongly modified. "Clan collectivism" has given way to socialist collectivism. Winter quarters and summer pastures are owned by collectives which are not necessarily formed out of kinship clans; the breeds of livestock have been improved; and agriculture has been developed in combination with the pastoral economy. In addition industrialization has been introduced on a very large scale, including coal and copper mining. In coal mining, particularly, a fairly large Kazakh labor force is engaged; and out of industry and the improvements in farming and herding have developed opportunities for higher education and technical training.

The Kazakh language belongs to the Turkic group of the Altaic family, and is closely related to other Turkic languages in Inner Asia, and to Osman Turkish. The language of Sinkiang and Soviet Kazakhs is identical. There was almost complete illiteracy among both groups until the Soviet Revolution. The small number of literates, mainly within the upper classes and the clergy, used the Arabic alphabet, which is unsuited to the phonology of the Turkic languages. After the Bolshevik Revolution a Latin alphabet was introduced, with the addition of a few special letters; this script was replaced in 1940 by the Cyrillic alphabet, again with the addition of a few special letters. The attack on illiteracy went slowly in the first years under the Soviet system. In 1931, 77 per

2: Norins S-4 (1939-1941) 1944 All Sinkiang All

and 50,000 ounces respectively. With all due allowance for exaggeration, there seems little question that if the gold latent in this province can be brought forth into the public markets many of China's, let alone Sinkiang's, financial worries will be eradicated.

*Copper and other minerals.* There are also considerable finds of copper, alum, quartz, gypsum, nitrate, and common salt in Sinkiang. Of these the 40 per cent pure copper ore that has been extracted from one of two great mines near Kashgar, and the copper deposits at K'ang-shan, Pai Ch'eng, Kucha, Tihwa, I-ning, and Sui-ting are notable. These are some of the recently publicized workings of the province:

COPPER DEPOSITS IN SINKIANG

| *Locale* | *Deposit* | *Comment* |
|---|---|---|
| Sui-ting (I-li) | Wu-ts'ung-tao Shan | |
| I-ning | Ha-erh-han-t'u Shan | |
| K'ang-shan | Unnamed | |
| Karashahr | K'u-erh-tai Shan | |
| Kashgar (Su-fu) | Wu-lan-wu-su R. | 20% pure ore |
| | Su-hun Shan | 40% pure ore |
| Kucha | New Copper Works | |
| | Old Copper Works | |
| | Su-pa-shih Copper Works | |
| Pai Ch'eng | Ho-se-erh Copper Works | |
| | K'o-t'a Copper Works | |
| | Kung Po Copper Works | |
| | Upper Copper Works | |
| | Lower Copper Works | |
| T'a-pan Ch'eng | San-chio Shan | |
| Tihwa | Chai-o-pao | |

## *Industry*

Though possibly microscopic in American eyes, the "industries" of Sinkiang deserve, and have been receiving, encouragement. The province has long been known for her handicraft talents in rug-making and silk-weaving, and recently primitive establishments of older days like those for wool-washing and leather-tanning have been improved

and supplemented. Tihwa, T'a Ch'eng, and Sui-ting have become principal "industrial" centers boasting of leather tanneries, flour mills, and auto repair and small parts shops. Concentration has, where possible, been put upon the installation of utilities in these and other major cities, and electricity, telephone, and telegraph facilities are now well established. In 1939 it was reported that there were twenty Sinkiang factories of various kinds, including tanneries and mills and a soap factory.

By the close of 1942 a new textile mill capitalized at one million taels was in operation in Tihwa, the province had a sizable iron and steel plant, and new sugar-refining and canning factories were in process of construction. With the aid of a large hydraulic plant the electric power of the province had been increased by this date to 28,000 kilowatts. Public printing offices have been opened at such widely separated points as Tihwa, T'a Ch'eng, Kashgar, Sui-ting, Aqsu, and A Shan, and the *Sinkiang Daily News* is being published in Tihwa.

### *Communications*

Modern communications have made the province aware of the stirring events in the outside world. Telegraph services were opened between 1893 and 1896 when Emperor Kuang Hsü appropriated 240,000 Chinese taels to construct the initial lines and offices. In the period 1903 to 1913 lines were completed which brought the service to Tihwa, Ch'i-t'ai (Ku Ch'eng-tzu), and the Altai region. Successful experiments were made with a radio station at Kashgar and Tihwa in 1921, and a 250-watt station was installed at the capital in 1930. By 1939 radio stations were located at such important towns as Tihwa, Kashgar, Ch'i-t'ai, Ha-mi, T'a Ch'eng, Barkol, Karashahr, Sui-ting, Kucha, and Aqsu. Under the Sheng Shih-ts'ai regime fourteen new wireless and eight new radio stations are said to have been set up. Under his first three-year plan Sheng put through the rigging up of 672 miles of telegraph wire, the repair of 1,379 miles of old lines, and the construction of 1,350 miles of telephone lines. Through these facilities the Chinese and Russian official news services, Central News and Tass, bring up-to-date information to the provincial capital.

241 it is calculated that a discharge of one cubic meter per second
312 should irrigate over 6,000 acres, whereas in Sinkiang the figure is estimated at 2,530 acres. There is a lack of drainage to provide for washing out the salt deposited by irrigation and of storage lakes and reservoirs and even small scale tanks. As a result, it is estimated that from a third to a half of the potential supply runs to waste.

One of the most important irrigation practices is the käriz or qanats, a gently sloping tunnel which leads along the axis of an alluvial fan, bringing ground water for irrigation from the upper slope to the surface lower down. The slope of the käriz is somewhat more gentle than that of the fan, and the käriz may be miles in length. A line of wells is dug at intervals and connected at the bottom by a continuous tunnel, three or four feet in diameter. Near the mountains, the käriz may be fifty feet below the surface. As the foot of the slope is reached, the shafts are more shallow, until at last the water emerges into the open air. In this way, ground water at the base of the mountains is tapped and brought to the surface of the plain. When the tunnel caves in or fills with sediment, a distant oasis may need to be abandoned.

241 The construction of käriz involves a heavy capital expense.
312 Some forty years ago, Aurel Stein estimated the cost of a single
• 471 long käriz in Turfan at over 300 pounds. The risk of failing to
454 find water deters peasants from joining together to dig a käriz, and construction is usually undertaken by wealthy landlords who hire labor. Their reward, when successful, is a monopoly of the water, which they sell to the peasants in return for a share of the harvest. This form of enterprise is so profitable that some landlords sell all their land and invest entirely in käriz.

312 Springs and subterranean flows are supplementary sources of
241 water in some oases. Small pits are used for storage of drinking water in some oasis towns. If these reservoirs are silted and new ones not constructed, the oasis will sooner or later have to be abandoned.

311 The farms surround the oasis, and the utilization of land is
312 determined by the proximity of irrigated land to the middle of the
241 oasis. Land nearest the market places for farm produce receive most of the fertilizer, in the form of night soil, and intensive garden cultivation of vegetables and fruits is practical on this land. Within this zone some cash crops such as apricots and other fruit are usually grown for the market. Beyond this inner area, the amount of fertilizer applied decreases rapidly. Two other zones follow where practically no fertilizer is used and hardier crops such as millet, kaoliang, and potatoes are planted. This land must be fallowed. Beyond this zone there is usually no water and the desert begins abruptly. The fringe area may sometimes be used for grazing, particularly of sheep.

4. Sinkiang

Industrial development in Sinkiang is perhaps the fastest in the entire Northwest. As early as 1950, four Sino-Soviet joint-stock companies were established in Urumchi, of which three were industrial plants. They were: (1) Sino-Soviet Non-ferrous Metals Company, (2) Sino-Soviet Rare Metals Company, (3) Sino-Soviet Petroleum Company and (4) Sino- Soviet Airlines. All the Soviet stocks were reportedly transferred to China at the end of 1954, but the Soviet technicians have remained there to help train the Chinese workers.

After the Communists took over, the Sinkiang Petroleum Company has been greatly expanded. Its crude oil output in 1955 is said to have been sixty-three percent higher than in 1954, and deep testing wells were being sunk in five new districts in the Gobi Desert to investigate their oil reserves. The five districts are located in the Turfan and Dzungaria Basins in the Sinkiang-Uighur Autonomous Region.

Another important industrial plant in Sinkiang is the July First Cotton Mill, which began production in 1952. In early 1955, 16,500 spindles and 600 looms were added, which will double the mill's cloth output. The total number of spindles was then over 30,000 and of looms, one thousand. This is the first modern textile mill built in Sinkiang, and it supplies the thirteen nationalities there with a rich variety of fabrics manufactured from the cotton grown in the province itself.

According to the province's initial plans, the investment in capital construction during 1955 is to be increased by over sixty percent as compared with 1954. A total of twelve construction jobs are to be newly built or rebuilt. Preparations are under way for these works. Among the new projects are a modern cement factory, a sulphuric acid factory, a small hydraulic power plant and an oil pressing mill. The cement factory was expected to have its first stage of construction completed in 1956. When completed, this factory will save the state a total of ten million yuan each year in the cost of transporting cement from China Proper. When the sulphuric acid factory starts production, it will supply all the raw material needed for printing and dyeing works by the July First Cotton Mill.

The eight units to be rebuilt in 1955 include the Liu-tao-wan Colliery, the Sinkiang Machine Works, the Ceramic Factory, and the First Cement Factory. When the underground tunnel of the Liu-tao-wan Colliery is rebuilt, it will be possible to produce more coal for the industries and local residents of Urumchi. The output of modern farming tools will be increased when the Sinkiang Machine Works is rebuilt. After a set of automatic equipment is added to the glass workshop of the Ceramic Factory, there will be nineteen additional kinds of new products to supply the market.

3:Cable & French M-5 (1926) 1927 AF13 Northwest China
Sinkiang AI 1



Russia which provides it with manufactured goods, and its own most noted product is sulphur.

The streets of Urumchi present a mass of low, formless, utilitarian buildings, covering a large area. The Governor's Yamen, which occupies a large enclosure, contains spacious courtyards dominated by a high tower, from which the surrounding country can be surveyed. Second in importance to the Government buildings is the new Post Office, constructed with a view to dealing with large quantities of mail material. The postal system is excellently controlled, and for many years the position of Postal Commissioner has been held by a Westerner, who, at the time of our visit, was an Italian. Thanks to energetic organisation, the enforcement of a time limit on the couriers, and the careful division of the road into well-regulated stages, Urumchi is brought within forty-five days of Peking—a truly marvellous accomplishment. The direct postal communication with Europe via Chuguchak, Semipalatinsk, and Omsk was suspended during the war, but is now once more available, by which means letters can reach London in twenty-eight days. There is a wireless installation in daily communication with Kashgar, but this is under the strict supervision of the Governor. The Russo-Asiatic Bank formerly had a branch office here, and a few Western firms have opened agencies through which they now carry on business.

The stream of *emigrés* who left Russia at the time of the Revolution, have had an important bearing on the development of Urumchi, which has resulted in the formation of a Russian quarter. Here the impoverished refugee, the Nogai, and the Sart live side by side, and of recent years the Soviet Government has appointed a Consul General to guard their interests. Permission to erect a statue of Lenin in the Consular grounds has been